

-Lower urinary tract obstruction (Infravesical Obstruction):

→ Any obstruction below the level of urinary bladder = **Bladder neck + Urethra**

Parts of urethra: -Prostatic -Membranous -Bulbous -Penile -Glandular

Etiology:

A) Bladder Neck:

i- Congenital: e.g. congenital bladder neck obstruction

ii- Acquired: **-Intraluminal:** e.g. Stones, blood clot, sloughed tumor, foreign body

-Wall: bladder neck contracture (d.t. Bilharziasis) **-Outside wall:** Prostatic (BPH, Cancer)

B) Urethra:

i- Congenital: -Meatal stenosis -Posterior urethral valve

-Prepuce: Phimosis: prepuce cannot be fully retracted over the glans penis

Paraphimosis: prepuce becomes trapped behind the glans penis, and cannot be reduced

ii- Acquired: **-Inflammatory** (e.g. Gonorrhea – Prolonged catheterization) **-Traumatic** **-Neoplastic**

Effects of Obstruction:

A) On Urethra: (esp. Prolonged obstruction)

* ↑ Pressure → Dilatation → extravasation → Periurethral Collection → Stagnation → Periurethral abscess

→ Severe dysuria + Pyuria + Continuous discharging pus

* Dilatation → Outpouching of urethral mucosa → Urethral diverticulum

B) On Urinary Bladder:

i- Stage of compensation:

* ↑ Contraction → Hypertrophy of muscle bundles (Trabeculation in cystoscopy)

* Mucosal Bulging (Cellule/Saccule/Diverticulum) in between muscles (in Cystogram) →

Serrated bladder wall, Strained bladder, Elevated bladder base, Globular shaped bladder

ii- Stage of decompensation:

* ↑ Dilatation → muscles weakness → Bladder Atony → Chronic urine retention with
over flow incontinence → Urine Reflux → Bilateral Hydroureteronephrosis → signs of uremia

** Normally urine doesn't reflux due to presence of uretero-vesical complex (valve)

Clinical Picture:

a) Irritative symptoms: -Frequency -urgency -end with: Urge incontinency

b) Obstructive Symptoms: -Hesitancy (difficulty to start) -Straining -Interrupted stream -Double voiding

-Extreme obstruction → Chronic retention